7: Jenness--B5-6B (1914-16) 1923 Copper Eskimo
116, 125

"The Canadian Arctic Expedition, after leaving Esquimalt, British Columbia, in June, 1913, sailed up the north-west coast of the American continent into the Arctic Ocean. A short call of about two hours was made at Point Hope, in northern Alaska, and a number of Eskimos boarded our vessel, the Karluk. Thirteen of these natives were hastily gathered into a little deck cabin and measured for stature, head length and head breadth. The MS. containing this information was sent ashore at Barrow a few days later to be mailed to Ottawa, most fortunately, because the Karluk was caught in the ice soon afterwards and subsequently crushed. My anthropometric instruments went down with the vessel, and a year elapsed before a new set could be procured from Ottawa by way of the Mackenzie river. We were then sailing towards Coronation gulf, in which vicinity we spent the two years from 1914 to 1916. During this period my work lay exclusively among the Copper Eskimos, and the only physical measurements I was able to obtain from other groups were derived from two Eskimos, both men, from the inland region west of Hudson bay, and five Eskimos, four men and one woman, from the Mackenzie river region. This paper then will deal mainly with the Copper Eskimos, but the information obtained from other regions will be used for comparative purposes, together with such data as can be found in the scattered literature concerning the Eskimos.

The instruments used were the portable anthropometric set that is sold by Messrs. P. Herman of Zurich. The anthropometer was the least satisfactory, for, even with the

aid of a plummet, it was difficult to maintain the rod absolutely perpendicular while the measurements were being read; moreover there was no level platform for the subject to stand on, and firm level floors are seldom found in the north. Routine difficulties of this kind were increased in the case of the Copper Eskimos owing to the climate of the region and the manner of life of its inhabitants. Only during the winter months do they congregate in large settlements; in summer they are scattered into small parties of two or three families each, that wander day by day from one place to another. The anthropometric work, therefore, had to be done indoors during the winter and spring. The headquarters of our expedition at Bernard harbour consisted of but one room 18′ by 15′ in which six men had to sleep and carry on their scientific work. It will be readily understood that after the sleeping quarters, tables, shelves and fire-place had been arranged and set in place, there was very little room for the admission and examination of the Eskimos. Hence by far the greater number of the measurements were taken in snow huts, generally in the dance-houses of the settlements, since the ordinary dwelling was rarely high enough to allow the anthropometer to be held perpendicular. The light was always very indifferent, on certain days in fact quite insufficient for the mere reading of the figures; moreover the temperature inside the snow hut was either somewhere around freezing or considerably below it. In addition to these physical disadvantages the dance-houses were generally filled with jostling if good-humoured crowds of

on-lookers who had no conception of the purpose of the investigations but were always ready to tender advice and assistance, and to provoke a little merriment by jesting remarks at the expense of the investigator or his subjects. In spring the light was much better, and it was found possible to examine more of the natives at headquarters; consequently, while the actual measurements taken were the same as in the winter, fuller [6B] details could be given concerning the individual features. Every possible care was taken to ensure accuracy, but the difficulties were so great that laboratory standards of exactness should not be applied to the results.

Generally speaking I tried to follow the instructions contained in Notes and Queries on Anthropology, 4th Ed., published by the Royal Anthropological Institute of Great Britain and Ireland in 1912. The measurements taken were:--

1. Stature.--The subject was made to stand erect, his eyes fixed on where the horizon would be if visible, knees straight, heels together and toes pointing outward. It was not possible to measure the natives bare-footed on account of the snow floor, so a deduction of 7 mm. has been made in every case, an average arrived at by actually measuring the thickness of a normal set of foot-gear.
2. Head Length.--The maximum distance from the glabella to the farthest point

behind in a straight-line. The glabella was seldom prominent, seeming to depend a great deal on the shape of the forehead, for the bridge of the nose was often greatly sunken and the glabella, instead of protruding, was almost hollow, the forehead sloping down in an even curve to the bridge. In such cases I assumed the glabella to be the point where the line of the eyebrows intersected the median line down the nose.

3. Head Breadth. --The maximum diameter transversely to the head above the plane of the ear-holes, the points of the callipers being kept at the same horizontal level. No deduction was made for the thickness of the hair, but the callipers were inserted as far as possible through the hair directly against the skin.

4. Head Circumference. --The tape passed over the glabella, above the ears and over the remotest point on the back of the head, no deduction being made for the thickness of the hair.

5. Total Face Length. --From the nasion to the lower edge of the chin in the middle line, the subject holding the mouth closed in a natural manner. The nasion was a point of some difficulty to determine. It is defined in Notes and Queries as the 'most depressed point at the root of the nose.' This is usually marked by a wrinkle, but in many cases there were two and even three wrinkles between which it was extremely difficult to choose. In such cases I was guided to some extent by the relative positions of the eyes, but undoubtedly another observer might quite well have fixed upon some other point

than that which was actually adopted and the resultant figures would show some divergence in consequence.

6. Upper Face Length. --From the nasion, as defined above, to the alveolar point.

7. Face Breadth. --The greatest width obtained while moving the callipers at right angles to the face along the zygomatic arches.

8. Nose Height. --From the nasion to the subnasal point.

9. Nose Breadth. --The maximum distance between the alae, which were only lightly touched by the callipers.

10. Nose Depth. --From the sub-nasal point to the highest point on the nose. This was a very unsatisfactory measurement, as it was not easy to determine the highest point; moreover it does not give the absolute degree of prominence of the nose, as this depends also on the shape.

11. Jaw Breadth. --Taken between the corner angles. The fleshiness of the subject seemed to make a considerable difference in this measurement.

Except in the case of the Alaskan natives the ages that are given are approximate only.

In conclusion I should like to acknowledge the very great assistance I have received in preparing this paper from Dr. F. Boas, of Columbia University, and from Dr. E. A. Hooton, of Harvard University, both of whom furnished me with many valuable suggestions and criticisms, although they are not responsible in any way either for the form in

which the paper is presented or for any statements that are made in it."

7: Jenness--38B (1914-16) 1923 Copper Eskimo
116, 143

"In the preceding section, when describing the individual Eskimos who were made the subjects of measurement, I separated them according to the localities or social groups to which they considered themselves attached. [JMR: i. e., Males were measured in the following groups. A. Akuliakattak group, Dolphin and Union strait. B. Noahogniq group, Dolphin and Union strait. C. Walliaq group, Coronation gulf. D. Asiak group, Coronation gulf. E. Pingangnaqtok group, Coronation gulf. F. Kilusiktok group, Coronation gulf. G. Asiak group, east of Kent Peninsula. H. Kanghiryuaq group, Prince Albert sound. I. Hanerak group, South-west Victoria island. J. Puiviliq group, South-west Victoria island. K. Nagyuktok group, South Victoria island. L. Kigliniq group, South Victoria island. Females were measured in all of these groups save in groups G, I, and J. In addition some women were measured from the Saningaiyoq group, Backs River.]....As far as the physical characteristics of the Copper Eskimos are concerned such a differentiation of the population into local groups has absolutely no importance, for they are all closely connected by ties of kinship and relationship; moreover the groups undergo a reshuffling process every year, so that their composition continually changes and a man in the course of his life-time may belong to as many as half-a-dozen different ones. This is true not only of the basin of Coronation gulf proper, but of the slightly more outlying areas like Prince Albert sound and Minto inlet; for the inhabitants of these places also continually visit and intermarry with the Eskimos south and east of

them. It follows, therefore, that there can be no local variations in physical type throughout this whole region, no features present, let us say, in Prince Albert sound that are not equally present in Bathurst inlet; and this is confirmed by the data given in the preceding section.... In the general discussion of the date which is now to follow no attention will be paid to local groups, but the whole region inhabited by the Copper Eskimos will be treated as a unit. This region lies roughly between 67° and 72° north latitude and 102° and 120° west longitude, having Coronation gulf as its geographical centre."

7: Jenness--38B (1914-16) 1923 Copper Eskimo
116, 145, 481

"All the natives are extremely active and hardy, capable of enduring greater exertions and privations than most white men. The gait of the men resembles that of an athletic European, but the women walk with an awkward rolling motion, partly due, perhaps, to the bulkiness of their clothing, but still more to the fact that they are invariably bow-legged, their toes, instead of turning out, as the men's generally do, usually pointing straight ahead or even turning in. . . ."

7: Jenness--38B (1914-16) 1923 Copper Eskimo
116, 142

"The inhabitants of this region, the Copper Eskimos, are of about the middle stature, and sturdy and robust in build. The fur clothing in which they are habitually enveloped gives them an exaggerated appearance of corpulence, whereas in reality they incline towards slenderness, the body tapering a little below the broad shoulders (1). Many of the children, however, and a very few of the adults, are distinctly pot-bellied, and no markedly thin person was seen by the expedition, while, on the other hand, two women were found to measure each as much as 14 inches around the forearm. The average weight seems to be greater than that of Europeans; eleven men averaged 164 lbs. (deducting 8 lbs. for the weight of the clothing) and five women 167 lbs."

"1. This seems characteristic of all Eskimos; cf. for Greenland, Holm, Meddelelser om Grønland, Vol. XXXIX, p. 27, and for Point Barrow, Simpson, Arctic Papers for the Expedition of 1875, London, 1875, p. 238."

7: Jenness--B39 (1914-16) 1923 Copper Eskimo
116, 142, 515

"The general appearance of these Eskimos varies a great deal according to the season of the year. In summer, when they wear their oldest clothes and wander day after day over dusty plains or muddy swamps, their faces become encrusted with a constant layer of dirt. Washing is unknown, and while a party occasionally bathes in a stream or lake on a very hot day, these occasions are few and far between. The skin, too, becomes very much tanned at this season, so that altogether the appearance of the natives is not prepossessing. But in winter, when they wear new fur clothing, and contact with the snow removes the dirt from their faces at the same time as the tan disappears, their appearance is so changed that one could almost imagine them a different people."

7: Jenness--B39 (1914-16) 1923 Copper Eskimo
116, 142

"The colour of the skin, where it is untanned by exposure, is a trifle darker than that of a North European. Mr. Wilkins, the photographer of the expedition, stated that in the neighbourhood of Minto inlet he saw a girl whose skin was quite as white as that of any European he had ever seen; but this was certainly exceptional. I frequently compared the colour of their upper arms with my own, and invariably found that mine was a little lighter. In spring and summer the Eskimos tan to a darker brown than we do, but in the long hours of winter twilight and darkness the skin resumes its normal colour. No sexual difference was noticed, although Holm states that Ammassalik women are lighter than the men. A very few individuals are marked with freckles.

There seems to be quite a distinctive odour exuded from their skin different from that of white people. An old woman once asked me whether I had noticed an objectionable odour about them when I first arrived in their country. I stated that all our party had noticed it, and she answered 'That is not strange, for we noticed the same thing about you.' Caribou-skin clothing has always a very strong odour, but the personal odour of the Eskimos seemed quite distinct from that."

7: Jenness--B39-40B (1914-16) 1923 Copper Eskimo
116, 142

"The hair of the head is generally abundant and remains black until very late in life. One man still in his prime was almost bald, and his little son of about 10 years was partly bald; but neither baldness nor grey hair are common. In many cases the hair seems to begin farther back on the forehead than usual, making the forehead appear higher than it really is. Holm states that the Ammassalik Eskimos of East Greenland have glossy hair.... while Simpson says that at Point Barrow in Alaska it is without gloss;....among the Copper Eskimos it is glossy in some individuals and not in others. Its colour is almost invariably a deep black, and it fluctuates in shape between what Martin calls 'flachwellig' and 'weitwellig,' in this paper called simply 'straight' and 'wavy.'.... Straight hair predominates, but there is a slight sexual difference, wavy hair being more common in men than in women; this may be due to the women wearing their hair in braids, which would tend to make it straighter.... The percentage of variation in colour and form are shown in the following table, which is based on the lists in Section I. [40B]

7: Jenness--B39-40B
116, 142

(1914-16) 1923

Copper Eskimo-2

HAIR OF HEAD

	Colour			Form	
	Black	Black with tinge of brown at ends	Brownish-black	Straight...	Wavy
	p. c.	p. c.	p. c.	p. c.	p. c.
Men, 82 cases.....	92.5	2.5	5.0	66	34
Women, 42 cases.....	97.5	...	2.5	81	19

7: Jenness--40B
116, 142

(1914-16) 1923

Copper Eskimo

"Bushy eyebrows are very rare. Usually they are quite sparse, and in consequence are apt to seem lighter in colour than the hair of the head, although this is seldom the case; the eye-lashes are similarly short and scanty. I have tabulated the variations in colour and quantity of the eyebrows on a percentage basis, as was done with the hair of the head.

EYEBROWS

	Colour		Form				
	Black	Brownish-black		Abundant	Medium	Sparse	Almost none
	p. c.	p. c.	cases	p. c.	p. c.	p. c.	p. c.
Men, 76 cases.....	88	12	82	13	46	38	7
Women, 36 cases.....	89	11	41	2	15	68	15

7: Jenness--40B (1914-16) 1923 Copper Eskimo
116, 515, 302

"Most women possess combs, but only the younger ones make much use of them, and even they often use their fingers. In both men and women the hair swarms with nits; it is an office of friendship to search a neighbour's head, incidentally popping the trophies into the mouth."

7: Jenness--40B (1914-16) 1923 Copper Eskimo
116, 302

"In men the hair seldom falls below the shoulders. It is worn in various ways, sometimes clipped all over, sometimes not clipped at all, but allowed to hang in a tangled mass. The majority wear a tonsure, the purpose being, according to the natives themselves, to keep the head cool under the weight of the fur hood (2). Two men stated that they personally wore their hair untrimmed because they possessed rifles and were therefore men of importance in their community--that is to say, it was sheer swagger on their part; but I saw other natives who were not so fortunate wearing their hair untrimmed, while contrary wise some who possess rifles were close shorn.

Women's hair is generally longer than men's, reaching well below the shoulders, but seldom as far as the waist (3). It is parted in the middle and as a rule has two long plaits hanging down in front of each ear, tied at the ends with threads of sinew. Often, as in Hudson bay, a band of fur is wound spirally around each plait; but the Copper Eskimos never attach a bone handle to it, nor do they labour to make the band exhibit the

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"2. The Eskimos of the Mackenzie delta and of Point Barrow, who also wore a tonsure in former times, gave each a different reason for the custom. See Murdoch, op. cit., p. 140.

3. Holm, op. cit., p. 27, states that at Ammassalik the hair of the women is very thick, and finer, but also shorter than that of the men."

alternate strips of dark and white that Parry speaks of, ... but use merely a strip of plain white fur cut in a crescent from the belly of a summer-coated caribou. As these plaits are apt to dangle annoyingly in front of the eyes as the woman moves about they are generally tucked in the breast of the coat. In the Mackenzie delta, where similar braids were formerly worn, the women nearly always coiled a portion of the hair into a knob on top of the head; but this is rarely done by the Copper Eskimos, and then only by women carrying children on their backs so that the infants may have something to hold on to."

7: Jenness--B41 (1914-16) 1923 Copper Eskimo
116, 142

"Neither the moustache nor the beard develops to any extent before middle age; indeed the presence of a beard is considered a certain sign of old age, or at least of advanced years. The moustache is hardly ever thick, and the beard invariably sparse and scraggy; three inches is about its maximum length. Mr. Stefansson's statement that 'here (in Victoria island) are men with abundant three-inch-long beards'....applies, according to my observations, only to a very few individuals found on the mainland as well as on Victoria island; and certainly Back was guilty of considerable exaggeration when he said of some Eskimos on the Great Fish river 'they could hardly have nurtured a more luxurious growth of beard, or cultivated more flowing mustachoes.'.... The cheeks are always perfectly glabrous in the younger men, but towards middle age they become sprinkled with a few stray hairs. The beard is generally concentrated on the chin, although sometimes there is a small goatee. Depilation is practised, but not in any systematic fashion. The hair in this part of the face is usually black like the hair of the head, but it often has a marked brownish tinge, noticeable more particularly in the moustache and on the lower lip; even then the hair on the chin is almost always black, so that the brownish tinge is probably due in part to bleaching, the hot blood soup that is a favourite drink of the natives being perhaps one of the agencies. It is worth noticing in this connection that the hair of the head is almost invariably black, except sometimes at the extreme tips, where bleaching is also liable to occur.

7: Jenness--B41 (1914-1916) 1923 Copper Eskimo
116, 142

"CHEEKS

The cheekbones are high and prominent, being especially noticeable when the face is thin or elongated; but when the cheeks fill out in seasons of plenty the bones are partly masked by masses of tissue."

7: Jenness--B41 (1914-16) 1923 Copper Eskimo
116, 141

"The forehead is generally rather narrow but moderately high. It often recedes a little, but not more than in Europeans. The women (and children) as usual have somewhat straighter foreheads than the men. The lists of Section I furnish the following table of percentages.

FOREHEAD

	Height			Slope		
	Low	Medium	High		None	Slight
	p. c.	p. c.	p. c.	cases	p. c.	p. c.
Men, 77 cases.....	34	62	4	82	52	48
Women, 41 cases.....	12	85	3	42	64	36

7: Jenness--B41 (1914-16) 1923 Copper Eskimo-2
116, 142

MOUSTACHE AND BEARD

	Black	Brownish-black(3)	Brown
Men, 64 cases.....	p.c. 62.5	p.c. 36	p.c. 1.5

"3. Under brownish-black are included all cases where the moustache is given as brown or brownish-black, but the beard as black."

7: Jenness--42B (1914-16) 1923 Copper Eskimo
116, 142

"EYES

The eyes show a rather wide range of variation. In colour they are always brown, the dark shade predominating in both sexes. I received an impression that little children always had dark eyes but am unable to verify it, as detailed observations were confined to adults. It is worth calling attention to, however, since Parry received the same impression at Iglulik in Hudson Bay (1).

COLOUR OF EYES

	Dark Brown	Light Brown	Brown undefined
	p. c.	p. c.	p. c.
Men, 82 cases	55	44	1
Women, 42 cases	69	26	5

"1. Parry, op. cit., Vol. 4, p. 78."

7: Jenness--42B (1914-16) 1923 Copper Eskimo-2
116, 142

A secondary coloration of blue or grey, mainly around the fringe of the iris but extending occasionally into the sclerotis, was noticed in 14 men and 2 women, all of whom, as the following table shows, were judged to be 35 years of age and upwards.

	-34 years	35-44 years	45-54 years	55- years
Men--				
Cases examined.....	36	26	14	6
Cases with blue or grey fringe.....	--	7	5	2
Women--				
Cases examined.....	18	11	10	2
Cases with blue or grey fringe.....	--	1	1	--

The predominant colour of the eye in these cases was always brown, in three of them a dark brown, in the other thirteen a lighter shade. In no instance was there the slightest resemblance to the blue eyes of Europeans. With regard to the distribution of the phenomenon, of the 16 natives in whom it was noticed 1 belonged to Prince Albert sound

on Victoria island, 1 to the Victoria island side and 2 to the mainland side of Dolphin and Union strait, 1 to the Victoria island side and 11 to the mainland side of Coronation gulf. It is found therefore throughout the whole of the area inhabited by the Copper Eskimos. In an earlier paper (2) I have pointed out that it occurs in Alaska also and is almost certainly pathological in origin, being in all probability the result of repeated attacks of snow-blindness."

"2. American Anthropologist, Vol. 23, No. 3, July-September, 1921, p. 259f. Dr. Boas informs me that this greyish ring around the iris is common among whites also, increasing in width with age, and that it is purely pathological."

7: Jenness--42B-B43 (1914-16) 1923 Copper Eskimo
116, 142

"The shape of the eye varies considerably. It often slants a little, though seldom as much as in Mongols. The Mongolian fold is present in most cases but not usually pronounced except in children. The slits are moderately wide, and the eyelids partly concealed beneath the eyebrows.

Nevertheless one often sees straight eyes without any folding of the upper lid over the lower or its concealment beneath the eyebrow. In fact, here as among other Eskimos, every variety of shape may be found from full Mongolian to full European. These features are brought out in the following tables of percentages. [B43]

FOLD

	Pronounced	Medium	Slight	None
	p. c.	p. c.	p. c.	p. c.
Men, 81 cases.....	21	5	63	11
Women, 39 cases.....	15	23	56	5

7: Jenness--42B-B43 (1914-16) 1923 Copper Eskimo-2
116, 142

SLITS

	Wide	Medium	Narrow
	p. c.	p. c.	p. c.
Men, 69 cases	2	62	36
Women, 37 cases	---	49	51

CONCEALMENT OF LIDS

	Complete or nearly complete	Partial	None
	p. c.	p. c.	p. c.
Men, 73 cases	49	27	23
Women, 38 cases	50	26	24

7: Jenness--B43-44B (1914-16) 1923 Copper Eskimo
116, 141

"The bridge of the nose, besides being very depressed, is usually rather narrow. For this reason many of the Eskimos found it difficult to adjust our binoculars to their use, the space between their eyes being narrower than the distance between the lenses. Section I yields the following table of percentages.

HEIGHT OF BRIDGE

	Low	Medium	High
	p. c.	p. c.	p. c.
Men, 79 cases	82	17	1
Women, 37 cases	95	5	--

BREADTH OF BRIDGE

	Narrow	Medium	Wide
	p. c.	p. c.	p. c.
Men, 44 cases	68	18	14
Women, 13 cases	38.5	38.5	23

7: Jenness--B43 (1914-16) 1923 Copper Eskimo
116, 151, 751, 821

"No tests were made of the vision. In general it seemed good, though probably no better than that of white people living a similar life in the open air. The natives are quick at detecting objects at a distance, such as caribou on a hill-slope or a seal far out on the ice. From this one is very apt to imagine that their sight must be remarkably keen, but the fact really is that from infancy upward they are trained to scan the horizon for game and to detect every little irregularity or unusual appearance. The men take care to wear snow-goggles continually in the spring of the year, but some of the women never trouble about them. One elderly woman who had rather keener vision than usual told me that she never used snow-goggles and had never suffered from snow-blindness."

7: Jenness--B43-44B (1914-16) 1923 Copper Eskimo-2
116, 141

From the bridge the nose usually runs straight to the tip, but occasionally the line forms a concave curve or a small hump mars its regularity. The tip itself is usually moderately high and inclined to be rather broad. Both snub and hooked noses are to be seen, though neither form is very common. The flat appearance of the face so often mentioned by writers as characteristic of the [44B] Eskimos is as much dependent on the shape and height of the nose as on the prominence of the cheekbones. A broad, low nose makes the face seem flat; conversely a nose that runs straight with a slight hump to a high, narrow tip neutralizes the effect of the broad, high cheekbones and narrow forehead and makes the face seem longer, even somewhat Indian in type. Collinson remarked aquiline noses and a Jewish cast of countenance among the Eskimos of Walker bay on Victoria island, but says that it was not apparent among the natives of Cambridge bay in Dease strait;....yet the Cambridge bay natives travel freely all over Coronation gulf, and it was among the gulf natives that I myself particularly remarked its presence. Aquiline noses, indeed, seem to occur in all Eskimo tribes; Rasmussen noticed this feature at Cape York in northern Greenland and Murdoch at Point Barrow in Alaska...."

7: Jenness--44B (1914-16) 1923 Copper Eskimo
116, 145, 752

"TEETH

The teeth are usually regular and pearly white. The incisors of the old women are often worn down almost to the gums, the result of constant chewing on seal-skins and other hard objects. Toothache seems rare; the remedy is to jerk out the tooth with a thread of sinew. Several old men were found to have lost teeth in this way, and one child was seen extracting a milk tooth."

7: Jenness--44B (1914-16) 1923 Copper Eskimo
116, 141

"The lips are usually rather full. Eversion, not frequent in the upper lip, is the rule in the lower, which is also somewhat thicker than the upper. The protrusion of the lips frequently gives an unreal semblance of recession to the chin, which is nearly always straight.

EVERSION OF LIPS

	Upper		Lower	
	None	Slight	None	Slight or considerable
	p.c.	p.c.	p.c.	p.c.
Men, 82 cases	73	27	29	71
Women, 42 cases	69	31	26	74

7: Jenness--44B (1914-16) 1923 Copper Eskimo-2
116, 141

THICKNESS OF LIPS

	Upper			Lower		
	Thin	Medium	Thick	Thin	Medium	Thick
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Men, 82 cases.....	1.5	68	30.5	1.5	48.5	50
Women, 42 cases.....	2.0	86	12	2.0	64.5	33.5

7: Jenness--B45 (1914-16) 1923 Copper Eskimo
116, 142

"GENERAL FACIAL APPEARANCE"

"The head appeared on the whole less scaphoid than I had expected. Its auricular height could not be measured owing to the lack of proper callipers. No doubt the true shape is often masked by the mass of hair, especially in the women. Yet the keel-shape is not at all uncommon, and in a few instances is remarkably pronounced. The face is usually flat and broad, but there is great variation, as among all Eskimos. Three general types seem distinguishable, though they all gradate into one another. First there is the round or slightly oval face with regular features, a rather fine nose, cheekbones not very prominent and chin rounded or but slightly pointed. This type is illustrated in plate XI. The second has a longer face and pointed chin, outstanding cheekbones, and a nose frequently aquiline. Sometimes the face is long and the chin pointed, but the jowls are broad and the general shape of the face square or rectangular; or the face may be wedge-shaped, broad above but tapering to a pointed chin below.... Examples are shown in plates I and VI. The third type, much rarer, is somewhat reminiscent of the negroid, for the face is very short, the nose low and flat with rather wide nostrils, the lips thick and everted and the brow rather beetling. The features most distinctive of Eskimos, however, are all retained; the high head and prominent cheekbones, the colour and shape of the hair and eyes determine the racial affinity at a

glance. This third type is illustrated in plate V. No. 55 in the tables of Section I offers another example.

This distinction into types, however, is largely subjective and will vary with different observers. They are of little importance except to stress the fact that in Coronation gulf, as elsewhere, the Eskimos do not present an absolutely uniform appearance, even where there has been no known admixture with outside peoples. A native of unusual appearance is very apt to attract notice and give rise to a passing comment such as 'he was much more like a gypsy than an Eskimo,'.... or 'remind of stocky, sunburned, but naturally fair Scandinavians.' Of course racial intermixture is often readily discernible in the features, and this external evidence can be of great value when supplemented by other characters; but the features alone are rarely a safe guide, since we have no means of estimating the extent to which they may vary in an unmixed stock."

7: Jenness--B45 (1914-16) 1923 Copper Eskimo
116, 142, 516

"HANDS AND FEET

The hands and feet are small, so that a European can seldom wear mittens and foot-gear that the Eskimos have made for themsel[illegible] Left-handed people are occasionally seen; clothing made by them can always be recognized because the stitches run from left to right instead of in the opposite direction. The wrists of the women seem more supple than those of the men; they possess, too, a greater delicacy and fineness of touch. Like many of our women, they habitually hold the little finger somewhat aloof from the ring finger. The feet are generally warm and moist. They seem often to be warped by the boots, which have a tendency to cramp the toes, especially the spring and summer water-boots."

7: Jenness--B45 (1914-16) 1923 Copper Eskimo
116, 821, 516, 526

"When the feet are cold the Eskimos kick them one against another, standing alternately on each foot, or else they jump into the air and kick them together."

7: Jenness--46B (1914-16) 1923 Copper Eskimo
116, 144

"The description of the Copper Eskimos given in the last few pages might be applied in almost every detail to the Eskimos of other regions. Outwardly the natives of Coronation gulf can be distinguished from those of Alaska or of Hudson bay only by their style of clothing, by their manner of wearing the hair and tattooing the face, and by other features of an equally secondary character. Any physical peculiarities they may possess are relatively slight and can be established only by detailed measurements compared with the measurements of other Eskimo groups. In this way alone may we hope to discover whether the natives of Coronation gulf are to be classed as pure-blood Eskimos, or whether they show traces of foreign admixture."

7: Jenness--46B-B47 (1914-16) 1923 Copper Eskimo
116, 144

"The only foreign admixture that appears at all possible is with Indians. It is true that Mr. Stefansson though he could discern traces of European blood among the Copper Eskimos, and suggested as its only conceivable source the old Icelandic colonists in South Greenland.... His theory was based on certain supposed peculiarities in the length and colour of the hair, the colour of the eyes, and the general outlines of the features; and it was supplemented by a comparison of the proportion $\frac{\text{breadth of face}}{\text{breadth of head}}$ between the Copper and other Eskimos, a comparison which favoured, he thought, the hypothesis of their part-European descent. But the descriptions of the 126 natives from all parts of the Copper Eskimos region given in Section I of this paper show clearly that the theory has no foundation in actual fact. Not a single native there differs noticeably from the rest in colour and length of hair, while the blue or grey tinge of the eye, a peculiarity which is one of the cardinal points in Mr. Stefansson's theory and of which my tables give 16 instances, is not only pathological in origin, but common among Eskimos elsewhere. As for the general outlines of the features, I can merely remark that neither I myself nor any member of our party, during the two years we spent in this region, saw a single Copper Eskimo whose appearance suggested in the slightest degree the presence of European blood. The last [B47] of Mr. Stefansson's arguments, that derived from the proportion between the face breadth and head breadth, is purely illusory, as I shall show later on in the paper. Not one of the four features he cites,

therefore, lends the slightest support to his theory. Even on historical grounds. . . . [JMR: i.e. the theory that there are traces of European blood in the Copper Eskimo due to Scandinavian colonists in South Greenland] might reasonably be rejected, for while there is abundant evidence for movements of Eskimos from the west into Greenland, there is absolutely none for any movement from Greenland westward, at least not until the close of the nineteenth century. Any such migration as Mr. Stefansson postulates must have taken place after the middle of the 15th century and before the close of the 16th, which marked the opening of the great era of Arctic exploration; but a westward migration during these years is hardly conceivable, since this was the very period when the Eskimo tribes were working their way eastward into Greenland and establishing themselves along its coast-line."

7: Jenness--B47 (1914-16) 1923 Copper Eskimo
116, 144

"The theory of any European admixture among the Copper Eskimos may be rejected without further consideration. But the possibility of a slight infusion of Indian blood cannot be dismissed so summarily. It is true that from at least the middle of the 18th century until a very few years ago the two peoples studiously avoided each other, and the rare encounters of which we have any record were always hostile ones. Yet even during this period it is not impossible that young Indian girls were taken captive on a few occasions and married among the Eskimos. In the long centuries that preceded the historic period, centuries when the homes of many of the Eskimo tribes were certainly not the same as at present, it seems not unlikely that there were periods of peaceful intercourse and perhaps intermarriage between the two peoples. There are certain customs and beliefs common to them both that must surely have originated in a single source, and the very fact that Indians and Eskimos have blended on the lower Yukon makes it all the more probable that they have mixed elsewhere, though not to the same extent. We know that the Eskimos taken as a whole are not a homogeneous unit, for there are considerable differences in stature and in head and body proportions among the different tribes; but how far these differences can be co-ordinated with differences among adjacent Indian tribes we have yet to learn, since the northern Indians are even less known than the Eskimos. In fact, so scanty are our data concerning the physical characteristics of these Indians that in the ensuing discussion I shall lay very little

stress on their possible admixture with Eskimos, except in Alaska, but try merely to throw some light on the variations among the Eskimos themselves by relating the facts given in Section I of this monograph with what we already know of other tribes; and since the osteology of the western Eskimos is to be made the subject of a special report the present discussion will be confined mainly to observations on the living."

7: Jenness--B47-48B (1914-16) 1923 Copper Eskimo
116, 141

"The comparative material available for this purpose [AW: i. e. the purpose of discovering possible Indian admixture in the Copper Eskimo.] is rather limited. From the west we have Boas' figures for the statures and cephalic indices of the Eskimos of Alaska as a whole, Ray's measurements of the statures and weights of 51 men and 30 women of Point Barrow, and Stone's head and trunk measurements of 11 men and 5 women from the Noatak river region. The last traveller has also measured 12 men and 6 women in the Mackenzie delta. Farther east, from Hudson bay, we have Parry's figures for the statures of 20 men and 20 women of Iglulik, various measurements from 35 men on Southampton island recorded by Tocher, and the statures and weights of 9 Aivilik men and 12 Aivilik women given by Boas. Labrador is represented by the measurements of 11 men and 10 women recorded by Duckworth and Pain and the statures of 26 men and women given by Boas. In Greenland there are Steensby's measurements of 8 men and 10 women in Smith sound, while from south-west and east Greenland we have the rather extensive information published by Søren Hansen. [48B]

Less than half of these observations were made on Eskimos who had been immune from European influence. Hansen has already pointed out that this influence is likely to have caused some modification in the physical type, especially in the stature. It will be advisable, therefore, to make some distinction between the various groups, on the basis of our historical knowledge.

7: Jenness--B47-48B (1914-16) 1923 Copper Eskimo-2
116, 141

A. Eskimos virtually untouched by foreign influences, and presumably of pure stock.
   1. Ammassalik Eskimos, East Greenland.
   2. Smith Sound Eskimos measured by Steensby.
   3. Iglulik Eskimos measured by Parry.
   4. Copper Eskimos.
   5. Point Barrow Eskimos measured by Ray.

B. Eskimos modified by European influence.
   1. Hudson bay Eskimos.
   2. Labrador Eskimos.
   3. Greenland Eskimos, except those of Ammassalik.

C. Eskimos probably modified by both Indian and European influences.
   1. Noatak river Eskimos.
   2. Point Hope Eskimos.

7: Jenness--B47-48B (1914-16) 1923 Copper Eskimo-3
116, 141

3. Mackenzie river Eskimos (1)."

"1. The old coastal inhabitants of northern Alaska and the Mackenzie delta largely disappeared during the last years of the 19th century through the ravages of European diseases. Their places have been taken by natives from inland, those dwelling on the Noatak and Colville rivers going to Point Hope, Barrow and Point Barrow, while the more eastern inlanders drifted out to the Mackenzie delta. At the present time the old and the new coast populations are inseparably mixed, and I am inclined to believe that even Stone's data from the Mackenzie delta may reflect this immigrant inland element."

7: Jenness--48B-B49 (1914-16) 1923 Copper Eskimo
116, 141

"Before taking the measurements one by one and examining the variations of their means among the Eskimos of different regions it will be advisable to examine the means themselves among the Copper Eskimos and see to what extent they differ for different age-classes. It should be remembered that the Copper Eskimos had no idea of their ages, so that the age-classes given below are only approximately accurate; but no man there was judged to be under 20 years of age, and no woman under 18. The figures in brackets give the number of individuals in each class.

It is perhaps unsafe to commit oneself to any conclusions when the number of individuals in each class is so small, but two points seem worth noticing. First, that in no age-class does the mean depart very widely from the total mean, so [B49] that the latter must be considered as tolerably accurate. The second point is that in the case of the men the means for the first two age-classes, i.e. for men up to 30 years of age, are with hardly an exception slightly below the total means. The means in the first age-class are invariably below for both sexes with the single exception of the men's stature, which may simply be due to a few abnormally tall individuals. This seems to indicate that women attain their full development shortly before 25 years, and men shortly before 30, a conclusion that Hansen also reached, though rather hesitatingly, from his

examination of the statures of the East Greenland Eskimos (1). If this is the case one would naturally suppose that more reliable means could be obtained by restricting observations to individuals above those years; but this would hardly be true, since the Eskimo population in any single area is so limited that the number of subjects available would be greatly reduced and the possibility of error proportionately increased."

"1. Meddelelser om Grønland, Vol. XXXIX, p. 157. That the development of the body, however much retarded by climatic and food conditions, should not be complete at the age of 25 years is so remarkable that it is very doubtful whether the table can be trusted on this point."

7: Jenness--B49 (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Stature]

	Male	Female
Number of cases	82	42
Low	1506mm	1403mm
High	1743mm	1660mm
Mean	1648mm	1564mm
Standard deviation	±55	±52
Probable error of mean	±4.0	±5.4
Probable error of St. Dev.	±2.9	±3.8
Coefficient of variation	3.3	3.3

7: Jenness--B51 (1914-16) 1923 Copper Eskimo
116, 144

"The polygons below [AW: not reproduced] depict the statures in East Greenland (NE. and SE. Greenland combined), Coronation gulf and Point Barrow, the only places within the whole Eskimo area from which we have the data necessary for their construction. A glance shows that the polygons for East Greenland and for Coronation gulf are remarkably alike. The somewhat greater stature of the Coronation gulf women comes out very clearly, but, what the means failed to show us, the men also incline to be taller than their East Greenland kinsmen. Now the East Greenland natives are considered by Hansen to be a pure and unmixed Eskimo tribe. Are we then to attribute the slightly greater stature of the Coronation gulf natives to an infusion of Indian blood, as in the case of Alaska? It would seem that the resemblance between the stature polygons for Coronation gulf and East Greenland is so close that their slight differences in position might reasonably be ascribed to differences in the local conditions and modes of life, in which case, unless other evidence is forthcoming, any theory of Indian admixture is unnecessary. The increased height in Coronation gulf, however, need create no difficulty in our theory as to the effects of European and Indian contact on Eskimo stature."

7: Jenness--B53-54B (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Cephalic Measurements]

	Head Length		Head Breadth	
	Male	Female	Male	Female
Number of cases.....	82	42	82	42
Low.....	182mm	178mm	140mm	138mm
High.....	214mm	203mm	163mm	151mm
Mean.....	195.9mm	190.0mm	151.8mm	145.8mm
Standard deviation (+ or -)	5.9	5.8	4.1	3.0
Probable error of mean "	0.44	0.60	0.30	0.31
Probable error of St. Dev. "	0.31	0.43	0.21	0.22
Coefficient of variation "	3.0	3.0	3.0	3.0

7: Jenness--54B (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Cephalic Index]

		Male	Female
Number of cases.		82	42
Low		70	71
High		84	81
Mean		77.6	76.7
Standard deviation	(+ or -)	2.6	2.4
Probable error of mean	"	0.19	0.25
Probable error of St. Dev.	"	0.13	0.17
Coefficient of variation	"	3.3	3.3

7: Jenness--B55-56B (1914-16) 1923 Copper Eskimo
116, 141

"The correlation that seemed to exist between variation in stature and European influence plainly does not hold for the cephalic measurements, a circumstance that Hansen has already remarked in the case of his Greenland data. It is different where Indian influences have been at work. The Point Hope and Noatak river natives differ from all other Eskimos and approach the neighbouring Indians not only in stature, but also in head form, showing a marked tendency towards brachycephaly.... The greater roundness of the head here seems to be due to an increase in its breadth rather than a decrease in its length. In Coronation gulf the head is slightly longer and broader than usual, although the [56B] proportion remains about the same as in NE. Greenland and Hudson Bay. The great size of the head in Coronation gulf comes out in the figures for the horizontal circumference, which average 581 mm. for men and 571 mm. for women ...."

7: Jenness--56B (1914-16) 1923 Copper Eskimo
116, 141

"Hansen, unfortunately, has not separated his data from NE. and SE. Greenland so that graphs can be constructed for each region, but from his table of the range of indices in both places and for both sexes combined I have plotted a graph to place alongside that given by the Copper Eskimo figures. The two polygons are evidently very much alike, but the Coronation gulf group has not the tendency towards dolichocephaly that is displayed by the East Greenland group, a tendency that,to judge from the means quoted above, is more marked in the SE. than in the NE. Greenlanders.

These graphs again raise the question as to whether there is not a slight admixture of Indian blood among the Copper Eskimos, making the head more pronouncedly mesaticephalic as well as increasing the stature....On the whole I am inclined to favour this assumption, especially in view of the fact that few individuals (see Section I, Males 12, 18, 37 and 57) seemed to resemble Indians in cast of feature. This admixture must have been very slight, however, since it has failed to produce any wide departure from the pure Eskimo type as found to the eastward; and altogether the evidence is so scanty that I hesitate to lay any stress upon it."

7: Jenness--B57 (1914-1916) 1923 Copper Eskimo
116, 141

"In regard to sexual differences the cephalic indices of the women seem to be everywhere slightly lower than those of the men, the difference varying from about 1 to 2.5."

7: Jenness--58B-B59 (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Face Measurements]

	Total Face Length		Upper Face Length	
	Male	Female	Male	Female
Number of cases.	82	42	82	42
Low	109mm	106mm	64mm	64mm
High	141mm	137mm	82mm	82mm
Mean	126.9mm	121.7mm	74.9mm	71.5mm
Standard deviation	±6.4	± 5.6	±3.8	±3.8
Probable error of mean	±0.47	±0.58	±0.28	±0.39
Probable error of St. Dev.	±0.33	±0.41	±0.20	±0.28
Coefficient of variation	5.0	4.6	5.0	5.3

7: Jenness--B59-60B (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Face Breadth]

	Male	Female
Number of cases	82	42
Low	129	132
High	157	144
Mean	145.7	137.8
Standard deviation	±5.4	±2.9
Probable error of mean	±0.40	±0.30
Probable error of St. Dev.	±0.28	±0.21
Coefficient of variation	3.7	2.1

7: Jenness--60B (1914-16) 1923 Copper Eskimo
116, 141

"The table suggests that the breadth of the face is more variable in men than in women. This sexual difference is not noticeable in any of the other measurements, nor would it naturally be expected in this one. It is worth remarking that the breadth of the face in both sexes is less variable than its length. Thus for men the coefficient of variation in face breadth is 3.7, whereas the same coefficient in the upper face length is 5.0. In women the difference is greater still, 2.1 as opposed to 5.3. There must be some reason for the length of the face being the more variable quantity, but I am unable to suggest one myself.

The Copper Eskimos have slightly broader faces than the Eskimos of Labrador, but not so broad as the Smith sound, Mackenzie delta, or Noatak river Eskimos."

7: Jenness--60B (1914-16) 1923 Copper Eskimo
116, 141

"At all events there is no indication that the Copper Eskimos have exceptionally narrow faces, so that the somewhat low value of the $\frac{\text{head breadth}}{\text{face breadth}}$ index which we shall find among them later must be ascribed solely to their broadness of head, a feature that has been noticed already."

7: Jenness--B61 (1914-16) 1923 Copper Eskimo
116, 141

"PROPORTION OF BREADTH OF HEAD AND BREADTH OF FACE

This proportion is of some interest because it has been used by Mr. Stefansson to support his theory of European infusion among the Copper Eskimos. . . . He relied upon Boas' statement, ... that the fundamental feature of the Eskimo skull consists in great breadth of face as compared to narrowness of skull, and the head is everywhere narrower than the face except in Labrador and West Greenland, where there is a strong infusion of white blood. The theory has been criticized already by Hawkes, who points out that there appears to be a slight sexual difference, the face in female skulls being, if anything, slightly narrower than the head. . . . Information on the subject is scarce, as very few anthropologists have made use of this index. Moreover, the question has been greatly confused by comparing measurements taken on the living with skull measurements, although the index given by the former seems to be several points lower than the corresponding skull index. Thus, in Smith sound, a place free from European admixture as far as adult Eskimos are concerned, Steensby's measurements of 18 natives give a combined index of 97 (8 men 96. 7, 10 women 97. 6) although 85 skulls from the same region measured by Bessels give an index of 103. . . . Eskimo skulls from other places closely resemble those from Smith sound, and as their indices never greatly exceed 100 we may be sure that the indices of the living Eskimos fall normally below that

figure, just as it does in Smith sound. That is to say, broader heads than faces is the rule in living Eskimos, and so cannot be interpreted as a sign of European admixture."

7: Jenness--B61 (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Facial Index]

		Male	Female
Number of cases		82	42
Low		44	47
High		61	59
Mean		51.4	51.9
Standard Deviation	(Plus or minus)	3.1	2.7
Probable error of mean	" " "	0.23	0.28
Probable error of St. Dev.	" " "	0.16	0.20
Coefficient of variation.		6.0	5.2

7: Jenness--62B (1914-16) 1923 Copper Eskimo
116, 141

[JMR: head breadth / face breadth index]

		Male	Female
Number of cases		82	42
Low		87	89
High		106	99
Mean		96.0	94.6
Standard deviation	(Plus or minus)	3.2	2.0
Probable error of mean	" " "	0.23	0.20
Probable error of St. Dev.	" " "	0.16	0.14
Coefficient of variation		3.3	2.1

7: Jenness--62B-B63 (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Jaw Breadth]

	Male	Female
Number of cases	82	42
Low	100	99
High	129	120
Mean	115.8	110.3
Standard deviation	±5.8	±5.6
Probable error of mean	±0.43	±0.58
Probable error of standard deviation	±0.30	±0.41
Coefficient of variation	5.0	5.0

7: Jenness--B63 (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Gonio-Zygomatic Index]

	Male	Female
Number of cases	82	42
Low	66	71
High	89	86
Mean	79.4	80.1
Standard deviation	±4.0	±3.9
Probable error of mean	±0.29	±0.40
Probable error of St. Dev.	±0.21	±0.28
Coefficient of variation	5.0	4.8

7: Jenness--64B (1914-16) 1923 Copper Eskimo
116, 141

"The lack of exactness in nasal measurements of the living, and the wide diversity in the shape and size of the nose among the Eskimos even of a single area, destroy much of the value of any data that may be obtained on this subject. The least satisfactory measurement of all is the nasal depth, which is consequently omitted altogether from this discussion. The tables of frequencies for the nasal height and the nasal breadth, together with the nasal index, are given below."

7: Jenness--64B (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Nasal Measurements]

	Nasal Height		Nasal Breadth	
	Male	Female	Male	Female
Number of cases	82	42	82	42
Low	43mm	45mm	30mm	30mm
High	69mm	61mm	43mm	41mm
Mean	55.7mm	52.2mm	37.0mm	34.4mm
Standard deviation	±4.1	±3.3	±2.9	±2.5
Probable error of mean	±0.30	±0.34	±0.21	±0.26
Probable error of St. Dev.	±0.21	±0.24	±0.15	±0.18
Coefficient of variation	7.3	6.3	7.8	7.3

7: Jenness--B65 (1914-16) 1923 Copper Eskimo
116, 144

"CONCLUSION

From the foregoing pages we may reap the following conclusions:--

1. There is some slight support for Hansen's view that European influence has produced a decrease in the stature of certain Eskimo tribes, but that its effect in other ways is indeterminate.

2. There is strong support for Boas' view that Indian admixture in Alaska has increased the stature and produced a marked tendency towards brachycephaly.

3. The Copper Eskimos show more resemblance to the eastern Eskimos than to the Alaskan.

4. The Copper Eskimo differ from most other Eskimos in that the head is slightly longer and broader, although the cephalic index is virtually the same as among the pure-blood tribes to the eastward.

5. There is no indication of European admixture among the Copper Eskimos, but a little evidence of slight Indian admixture."

7: Jenness--B65 (1914-16) 1923 Copper Eskimo
116, 141

[JMR: Nasal Index]

	Male	Female
Number of cases	82	42
Low	50	56
High	94	80
Mean	66.8	66.1
Standard deviation	±6.5	±5.3
Probable error of mean	±0.48	±0.55
Probable error of St. Dev.	±0.34	±0.39
Coefficient of variation	9.7	8.0